

(FILE 'HOME' ENTERED AT 11:23:47 ON 29 MAY 2006)

FILE 'REGISTRY' ENTERED AT 11:24:52 ON 29 MAY 2006

L1 1 S SODIUM HYDRIDE/CN
L2 1 S POTASSIUM HYDRIDE/CN
L3 0 S LITIUM HYDRIDE/CN
L4 1 S LITHIUM HYDRIDE/CN
L5 3 S CALCIUM HYDRIDE/CN
L6 2 S MAGNESIUM HYDRIDE/CN
L7 1 S ALUMINUM HYDRIDE/CN
L8 1 S LITHIUM ALUMINUM HYDRIDE/CN
L9 1 S VENLAFAXINE/CN
L10 0 S 4-METHOXYPHENYLACETONITRILE/CN
L11 0 S 4-METHOXYPHENYL-1-ACETONITRILE/CN
L12 0 S 4METHOXYBENZYLACETONITRILE/CN
L13 0 S 4-METHOXYBENZYLACETONITRILE/CN
L14 STRUCTURE UPLOADED
L15 5 S L14
L16 STRUCTURE UPLOADED
L17 0 S L16
L18 23 S L16 FUL
L19 1 S 4-METHOXYBENZENEACETONITRILE/CN

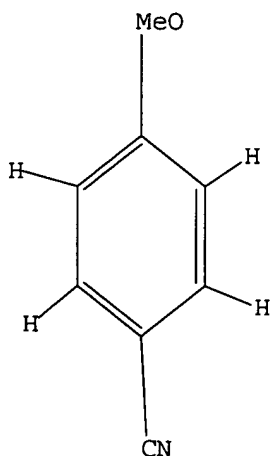
FILE 'CAPLUS, CAOLD' ENTERED AT 11:37:47 ON 29 MAY 2006

L20 3095 S L1
L21 968 S L2
L22 3530 S L1 OR L2
L23 435 S L21 NOT L20
L24 12281 S L1 OR L2 OR L4 OR L5 OR L6 OR L7 OR L8
L25 190 S L24 AND CYCLOHEXANONE
L26 2 S L25 AND L9
L27 2 S L24 AND L9
L28 0 S L27 NOT L26
L29 44 S L19 AND CYCLOHEXANONE
L30 16 S L29 AND L9
L31 3 S L30 AND HYDRIDE
L32 1 S L31 NOT L27

=> d 114

L14 HAS NO ANSWERS

L14 STR

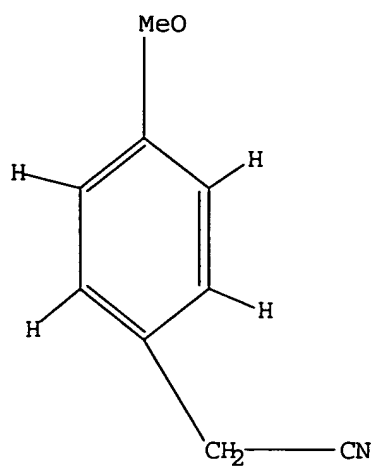


Structure attributes must be viewed using STN Express query preparation.

=> d 116

L16 HAS NO ANSWERS

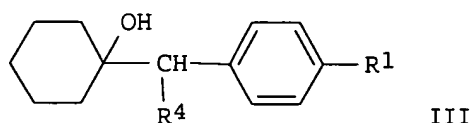
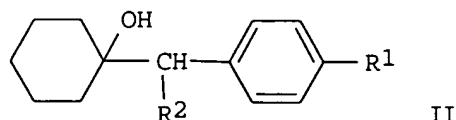
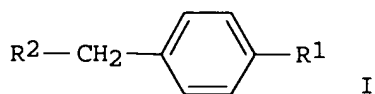
L16 STR



Structure attributes must be viewed using STN Express query preparation.

L26 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:451678 CAPLUS
 DN 141:23295
 TI Process for the preparation of cyclohexanol derivatives
 IN Lan, Zhiyin; Shi, Kaiyun; Mo, Qizhuang; Li, Yulin
 PA Peop. Rep. China
 SO U.S. Pat. Appl. Publ., 6 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN. CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------------------------------|------|----------|-----------------|----------|
| PI | US 2004106818 | A1 | 20040603 | US 2003-638845 | 20030811 |
| | CN 1504456 | A | 20040616 | CN 2002-153015 | 20021129 |
| PRAI | CN 2002-153015 | A | 20021129 | | |
| OS | CASREACT 141:23295; MARPAT 141:23295 | | | | |
| GI | | | | | |



AB A reaction of a para-substituted aryl compound I [R1 = OH, OMe; R2 = CN, CONH2, CONHMe, CONMe2] with **cyclohexanone** is facilitated by a metal hydride, such as NaH, KH, LiH, MgH2, CaH2, AlH3, and/or LiAlH4 to make first intermediates II [R1 = OH, OMe; R2 = CN, CONH2, CONHMe, CONMe2] useful in producing a drug commonly known as Venlafaxine. Alternatively, lithium diisopropylamide (diisopropylamino lithium) may be used in place of the metal hydride. The first intermediates II may be further reacted to form second intermediates III [R1 = OH, OMe; R4 = CH2NH2] in a reduction that is facilitated by Raney nickel or a metal hydride. These reaction processes may each occur in an organic solvent, which delivers highly pure reaction products in high yield. Thus, reacting p-MeOC6H4CH2CN with **cyclohexanone** in the presence of NaH afforded 80% II [R1 = OMe; R2 = CN]. The latter was hydrogenated over Raney Ni to give 83% III [R1 = OMe; R4 = CH2NH2].

L26 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:425466 CAPLUS
 DN 133:17266
 TI Synthesis of 1-[2-amino-1-(p-methoxybenzyl)ethyl]cyclohexanol
 IN Cheng, Guohou; Zhuo, Chao
 PA East China Science & Engineering Univ., Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese

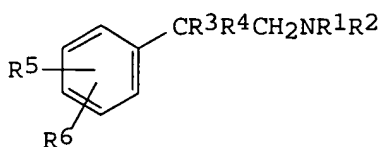
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------------|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | CN 1225356 | A | 19990811 | CN 1998-122097 | 19981215 |
| PRAI | CN 1998-122097 | | 19981215 | | |
| OS | CASREACT 133:17266 | | | | |

AB The process comprises allowing to react 4-methoxyphenylacetoneitrile with organic base at 0-5° for 0.5-2 h, adding with **cyclohexanone** at 0-5° for 2-4 h to obtain 1-(α -cyano-4-methoxybenzyl)cyclohexanol (I), and mixing with NaBH₄ in solvent for 3-5 h, adding 40-50% BF₃.etherate solution in 3-5 h, and refluxing for 1-3 h. The organic base is selected from one or more of NaOMe, NaOEt, NaNH₂, and NaH. The mole ratio of 4-methoxyphenylacetoneitrile-**cyclohexanone** - organic base is 1:1-1.3:1-1.3, and that of I-NaBH₄-BF₃.etherate is 1:0.9-1:1-1.12. The title compound is useful as intermediate for synthesis of the antidepressant venlafaxine.

L32 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1985:5895 CAPLUS
 DN 102:5895
 TI Phenethylamine derivatives and intermediates
 IN Husbands, George Edward Morris; Yardley, John Patrick; Muth, Eric Anthony
 PA American Home Products Corp., USA
 SO Eur. Pat. Appl., 58 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 112669 | A2 | 19840704 | EP 1983-307435 | 19831207 |
| | EP 112669 | A3 | 19841128 | | |
| | EP 112669 | B1 | 19870729 | | |
| | R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE | | | | |
| | US 4535186 | A | 19850813 | US 1983-545701 | 19831026 |
| | CA 1248540 | A1 | 19890110 | CA 1983-441289 | 19831116 |
| | AU 8322123 | A1 | 19840621 | AU 1983-22123 | 19831206 |
| | AU 567524 | B2 | 19871126 | | |
| | ZA 8309073 | A | 19840926 | ZA 1983-9073 | 19831206 |
| | IL 70390 | A1 | 19861231 | IL 1983-70390 | 19831206 |
| | GB 2133788 | A1 | 19840801 | GB 1983-32598 | 19831207 |
| | GB 2133788 | B2 | 19870715 | | |
| | AT 28628 | E | 19870815 | AT 1983-307435 | 19831207 |
| | FI 8304523 | A | 19840614 | FI 1983-4523 | 19831209 |
| | FI 77647 | B | 19881230 | | |
| | FI 77647 | C | 19890410 | | |
| | DK 8305713 | A | 19840614 | DK 1983-5713 | 19831212 |
| | DK 166372 | B | 19930419 | | |
| | DK 166372 | C | 19930906 | | |
| | HU 33097 | O | 19841029 | HU 1983-4231 | 19831212 |
| | HU 199104 | B | 19900129 | | |
| | ES 527938 | A1 | 19870101 | ES 1983-527938 | 19831212 |
| | JP 59116252 | A2 | 19840705 | JP 1983-235979 | 19831213 |
| | JP 04012260 | B4 | 19920304 | | |
| | US 4611078 | A | 19860909 | US 1985-736747 | 19850522 |
| | US 4761501 | A | 19880802 | US 1985-736744 | 19850522 |
| | ES 544402 | A1 | 19880401 | ES 1985-544402 | 19850531 |
| | GB 2173787 | A1 | 19861022 | GB 1986-3901 | 19860217 |
| | GB 2173787 | B2 | 19870715 | | |
| | JP 03135948 | A2 | 19910610 | JP 1990-267502 | 19901003 |
| | JP 04040339 | B4 | 19920702 | | |
| | JP 03178953 | A2 | 19910802 | JP 1990-267501 | 19901003 |
| | JP 05030826 | B4 | 19930511 | | |
| PRAI | US 1982-449032 | A | 19821213 | | |
| | US 1983-486594 | A | 19830419 | | |
| | GB 1983-16646 | A | 19830618 | | |
| | US 1983-545701 | A | 19831026 | | |
| | EP 1983-307435 | A | 19831207 | | |
| | GB 1983-32598 | A3 | 19831207 | | |
| OS | CASREACT 102:5895; MARPAT 102:5895 | | | | |
| GI | | | | | |



I

AB About 35 I [R1 = H, C1-6 alkyl; R2 = C1-6 alkyl; R3 = optionally unsatd. 1-hydroxycycloalkyl, optionally unsatd. 1-alkoxycycloalkyl, 1-cycloalkenyl; R4 = H, C1-6 alkyl; R5, R6 = H, OH, C1-6 alkyl, alkoxy,

alkanoyloxy, -CN, NO₂, alkylthio, NH₂, alkylamino, dialkylamino, carboxamido, halo, CF₃; R₅R₆ = methylenedioxy], antidepressants, were prepared. E.g., p-MeOC₆H₄CH₂CN in THF was treated with BuLi at -70°, then condensed with **cyclohexanone** at -50° to give 1-[cyano(p-methoxyphenyl)methyl]cyclohexanol (II). II was hydrogenated in NH₃-EtOH over 5% Rh on Al₂O₃, then methylated with HCHO and HCO₂H to give 1-[(2-dimethylamino)-1-(4-methoxyphenyl)ethyl]cyclohexanol (III). III showed an activity equal to imipramine in synaptosomal NE and 5-HT uptake inhibition. Also, unlike the tricyclic antidepressants, III and related compounds demonstrate neither muscarinic anticholinergic activity nor antihistaminic activities.